



# In a Different Vein

A NEWSLETTER OF THE  
**MICHIGAN  
ASSOCIATION  
OF  
BLOOD  
BANKS**

Vol. XXIII, No. 2  
Summer, 2004

## President's Message

by Mary Jo Drew, MD, MHSA  
Henry Ford Hospital Blood Bank

As we welcome the summer, and all the activities that are a part of the season, planning for the MABB 50<sup>th</sup> Annual Meeting continues in high gear. Peggy Stoe has informed me that topic and speaker selection is essentially complete. By this time, you should have received a "save the date" reminder for our 50<sup>th</sup> Anniversary Gala dinner, to be held the evening of September 22. Past presidents of the MABB are being invited to mark this special occasion with us and remember the illustrious history of our organization.

An exciting part of the Annual Meeting and celebration will be an exhibit of Michigan blood banking memorabilia from days gone by. We are seeking photographs, journal articles, books, transfusion devices, testing equipment, you name it, to include as part of this display. Please contact Linda Cardine at Henry Ford Hospital with any contributions you wish to make to this effort.

Hats are off to Sue Bowers and her education committee for a thought-provoking and interactive RAP session on bacterial testing of platelets, held in April. The panel discussion presented the experiences of both transfusion services and blood centers in implementing and performing this testing. Many practical ideas were exchanged which are sure to assist facilities in meeting this requirement.

The 2004 Spring Workshop, held on May 13, featured the usual outstanding panel of speakers, followed by a much-praised wet workshop. Kudos to Glenda Barager, Terri Downs and Vija Miske and their committee for their efforts in coordinating and presenting this valuable opportunity for learning and networking.

As the summer progresses, we will be wrestling with the usual challenges facing us at this time of year, including blood component shortages. As medical and surgical therapies become more intensive and blood dependent, more blood components are needed. We all have a responsibility to make our voices heard to our regulatory bodies and the AABB. Only by our participation can sensible policy emerge in the areas of bacterial testing of platelets, prestorage pooling and 7-day storage of platelets, and potential donor deferrals for new and/or perceived threats to the blood supply. New requirements must not adversely impact blood supplies without improving safety.

We will continue to deal with change at an ever-increasing pace. Bill Teague, president and CEO of Gulf Coast Regional Blood Center in Houston, TX, offered several "pearls of wisdom" regarding change during a presentation at this year's South Central Association of Blood Banks annual meeting. Bill believes that to deal effectively with change, you must EXPECT it, WANT it, ACCEPT it, and CAPITALIZE on it. Successful organizations do not fight change, but rather adapt to it quickly, efficiently and effectively. So must we all, as transfusion medicine professionals.



Mary Jo Drew, MD

## Calendar of Events

**MABB 50th Annual Meeting**  
**September 22-23, 2004**  
Schoolcraft College • Livonia, MI

**50th Anniversary Gala Dinner**  
**September 22, 2004 • 6:00 pm**  
American Harvest Restaurant  
Schoolcraft College • Livonia, MI

*Coming Attractions...*

(immunoematology)  
**i,ROBOT**

**AUTOMATION IN THE BLOOD BANK**

**COMING TO A HOSPITAL NEAR YOU!**

**MICHIGAN ASSOCIATION  
OF BLOOD BANKS**

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**P.O. Box 3605**  
**Center Line, MI 48015-0605**  
**(586) 573-2500 • (586) 573-7058 Fax**  
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*In a Different Vein* is a quarterly publication of the Michigan Association of Blood Banks. Current and archived issues of this publication are available at the MABB web site: [mabb.org](http://mabb.org).

Please feel free to submit any articles, announcements, advertisements, or case studies to *In a Different Vein*. Items of a personal note regarding colleagues are also welcome.

***Send articles to editors:***

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**Submission deadline for next issue is 10/01/04**

**2004 MABB OFFICERS**

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Bruce Newman, MD

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## Sheikh Saeed Scholarship

Nominations are being accepted for the Sheikh Saeed Memorial Scholarship. This \$200 award will help to defray expenses for an individual to attend the MABB Annual Meeting. All nominations must be made by a member of the MABB. You may nominate yourself. Nomination deadline is September 1, 2004. Please send your nominations and reasons why the individual should be considered for the scholarship to Janet Silvestri, MABB Administrator: [janet@hfcc.net](mailto:janet@hfcc.net) or by mail to P.O. Box 3605, Center Line, MI 48015-0605.

### *Nominee Information*

*Name:* \_\_\_\_\_

*Address:* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Blood bank affiliation:* \_\_\_\_\_

*Telephone number:* \_\_\_\_\_

*e-mail:* \_\_\_\_\_

*How will the nominee benefit from attending the Annual Meeting? (use additional pages if necessary)*  
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# Spring 2004 RAP Session

by Suzan L. Bowers, MT(ASCP)SBB  
Education Committee Chair

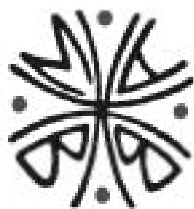
As members of the Education Committee gathered for the January 2004 meeting, the pre-meeting discussion was all about platelet testing. As each committee member offered their experience getting ready for testing, I realized we had our topic and format for the next RAP.

"Bacterial Testing of Platelets Follow Up - A Practical Perspective" was held on April 29, 2004 at the Holiday Inn Southfield. This topic was presented as a panel discussion by representatives of local hospitals and the Red Cross donor center. Panel participants were Terry Downs for the University of Michigan Hospital, Dr. Bruce Newman from Southeastern Michigan Red Cross, Barb Randall from Henry Ford Hospital, and Michelle Tuson from St. Joseph Mercy Oakland.

Dr. Newman began the discussion by summarizing the testing from the Red Cross perspective. He presented data and a good review about the theories behind testing. Three different methods of testing were then presented for discussion. Terry Downs provided the large hospital perspective and described how they test with pH strips. Michelle Tuson provide the community hospital perspective and described how they test using urine dip sticks. Barb Randall described how they test using a pH meter and actually had the meter available for a "show and tell".

There was plenty of audience participation with lots of good ideas presented. There were tips on the how to's on stripping the tails and making segments. Tip: the clips from IV tubing work great as a stripper. There was also discussion about documenting the testing results on paper or in the various computer systems. The question about follow up culturing was also discussed.

As always, the RAP was preceded by a delicious dinner offered by a friendly staff. Thanks to the panel speakers for their time and to the Education Committee for their effort. Look for another RAP this fall.



# Hemolytic Transfusion Reaction Caused By Group O Apheresis Platelets

by Mary Jo Drew, MD, MHSA  
Henry Ford Hospital Blood Bank

This case report summarizes the occurrence and investigation of a hemolytic transfusion reaction occurring as the result of a platelet transfusion containing plasma incompatible with the red cells of the patient.

A 61 year old man, group AB+, with a history of acute myelogenous leukemia, was admitted in blast crisis. The patient's platelet count was 11,000/uL, and he was transfused with a group O negative single donor platelet (SDP). No plasma compatible platelets were available due to product shortage. Near the end of the transfusion, the patient had chest and back pain, chills, and nausea, and passed red urine. The infusion was stopped. The patient was evaluated for possible myocardial infarction due to hypoxia and ST segment depression on ECG. A 5-gram drop in hemoglobin (10.2 to 4.7 g/dL) after transfusion was reported to the blood bank physician by blood bank technical staff.

Investigation revealed increased total bilirubin (0.3 to 10.8 mg/dL), and increased LDH (42 to 1962 IU/L). Direct antiglobulin testing was 3+ positive with anti-IgG and weakly positive with anti-C3. No irregular RBC antibodies were identified. Anti-B was eluted from the patient's RBCs. The patient's physician was notified of a hemolytic transfusion reaction likely due to high anti-A,B titration in the SDP. RBCs were transfused and the patient recovered.

The blood bank physician contacted the supplier of the SDP and the donor was recalled for testing. Saline isoagglutinin titration revealed anti-A>1:4096 and anti-B>1:2048. The donor was a frequent, longstanding SDP donor whose products had not been previously associated with any untoward reactions in recipients. The donor's record was flagged such that in future the donor's SDP will be used for group O recipients only.

This case presents a serious hemolytic transfusion reaction due to high titration of ABO isoagglutinins in a group O SDP given to a group AB patient. Housestaff caring for the patient did not initially consider the possibility of a hemolytic transfusion reaction due to the infused product being an SDP rather than RBCs. Education of clinical staff in the recognition of these reactions is important to assure prompt, appropriate therapy.

An editorial (Transfusion 2004;44:802-3) and article (Transfusion 2004;44:805-8) in the current issue of Transfusion address this issue. As more SDPs are used in transfusion therapy, and a subgroup of group O donors are known to have high titrations of anti-A, B, recommendations are needed for a uniform standard of practice.



# Fun a Reality at Spring Workshop, 2004

Kedzie Hall on the Michigan State University campus was the recent site of the MABB Spring Workshop on May 13, 2004. It was a beautiful spring day on the campus for "Reality Blood Bank: A Survivor's Guide", the theme for the lecture series and wet workshop. Participants were rewarded with a morning program of quality speakers and a successful wet workshop.



Jan Hamilton

Jan Hamilton from Southeast Michigan Red Cross Reference Laboratory started out the morning session with an informative review of serological techniques, examining the different types as well as their strengths and weaknesses. We learned about the major serological techniques for solving antibody problems, but also that no single method is best. It all depends on the type of problem being faced. There was some great information on pre-warmed testing and some alternatives to prewarming. We received ideas to solve testing problems using techniques that fit the problem, especially for autoantibody problems that can be quite frustrating.

"Comfort Testing" was the theme of a talk by Ann Steiner from Ortho Diagnostics that dealt with pre-transfusion testing. She examined serological testing from both a legal/safe/beneficial viewpoint to pinpoint what testing is good and helpful versus outdated and unnecessary. Of particular interest was a model for examining each lab's system for testing by asking certain questions such as: "Is it legal?, Is it safe?, Is it beneficial?" and the importance of asking these questions specific for your laboratory. Just because another lab is doing a test a particular way doesn't mean you have to do it that way. Streamlining is important, but it has to fit within the framework of your laboratory.



Terry Downs and Ann Steiner

Dr. Martha Higgins from St. John Hospital and Medical Center spoke on hemolytic disease of the newborn. We heard the Summer, 2004



Spring Workshop Committee: Deb Dondzila, Erica Trecartin, Vija Miske, Terry Downs and Glenda Barager

history of HDN, the early days of exchange transfusions, and the development of Rh Immune Globulin. Information was presented on the physiology, mechanisms, and management of HDN. We also learned about prenatal tests and how to use that information to evaluate for potential HDN. We also learned how to manage the affected fetus: to prepare blood for intrauterine transfusion, and what the doctors look for in management of the infant post-partum.



Dr. Mary Jo Drew and Dr. Martha Higgins

In keeping with the reality theme, the wet workshop was on making and testing eluates. Participants were given a case of a positive DAT, made an eluate, and found a new antibody. Needless to say, no one was voted out of the lab!!

The Spring workshop is always a fun time for medical technologists everywhere to practice skills, hear relevant topics and in general have a good time. It never hurts to network with other folks to bring new ideas to your laboratory. The wet workshop offers plenty of time to check out what others are doing, as well as practice advanced testing techniques.

The Spring Workshop has 2 scholarships given each year. Dr. Mary Jo Drew, president of MABB, presented the 2 winners and we would like to congratulate: Robert Goodwill MT(ASCP) of Genesys Regional Medical Center was the recipient of the Emanuel Hackel Scholarship. The Vi Williams Scholarship went to Kristina Martin MT(ASCP) of Hurley Medical Center.

**The next Spring Workshop will be Thursday, May 12, 2005.** We look forward to seeing you there!!

Terry Downs, MT(ASCP)SBB  
In a Different Vein

Separate  
Labs . . .

Different  
Hospitals . . .



**ST. JOSEPH MERCY HOSPITAL • ANN ARBOR BLOOD BANK STAFF**  
*Front (left to right) Oi Cho (Section Leader), Glenda Harrison, Stacey Towler  
Back (left to right) Sharon Lowry (Section Leader), Christine Cundiff,  
Alisa Michalishyn (Manager), Dr Ann Alpern (Medical Director)*



**BOTSFORD HOSPITAL BLOOD BANK STAFF**  
*Front row from left to right: Nafisa Kapadia MD (Medical Director of Transfusion Service),  
Sue Pelley, Kim Geck, Feyisola Kasali  
Second row from left to right: Stella Fratarcangeli (Manager, Transfusion Service), Don  
Pierron, Arlo Flanders, Matt Davis*

Sharing  
One  
Mission . . .

**Blood bankers “lighting the way” for tomorrow!**

## Life for an Antibody at ARC-SEM Reference Lab...

A specimen was submitted with the following information:

- ✓ Female, 23 years old ,
- ✓ Hgb 9.8,
- ✓ 3<sup>rd</sup> pregnancy C-section scheduled for today
- ✓ all cells on gel panel were 3+ in gel, with auto control negative
- ✓ LISS tube tests were similar
- ✓ HTLA screen- negative.
- ✓ Antibody screen- negative 6 1/2 mo earlier.

From this information what do you suspect? What does all the same strength of reactivity indicate to you? What do you want to do next? (Besides call the reference lab).

The hospital thought of a high incidence antigen and ran some cells lacking high incidence antigens. They ran I-, k-, Js(b-), Lu(b-) and Kp(b-) cells. These were all 3+. So what else can be done?

At the Reference Lab, I verified the reactivity in Liss tube tests and then ran an antibody screen using ficin-treated cells. The ficin screen was 1-2+ with a negative auto control. The direct antiglobulin testing was negative with polyspecific AHG, anti-IgG and anti-complement. So what should I be thinking? Warm auto antibody is not likely as the auto control is negative. It is most likely an antibody to an antigen of high-incidence, but how do you go about finding out which one? At the Reference Lab, we phenotype the patient's rbc's for common antigens to see which ones are present and

which are lacking so we know what common antibodies can be made.

Patient's rbc phenotype is C+E-c+e+, M+N+S-s-, Fy(a-b-), Jk(a+b+), Le(a-b-), P1+. Does this give us any hints to resolving our dilemma? Yes, it does. Phenotyping a patient's cells may not always be indicated but it can be a very helpful tool in identification of antibodies. It does take time and reagents but as with this patient, it can point the way to resolution. From this phenotype I suspected that the patient's serum contained anti-U, because the S-s- type of her cells indicated that she should be U-.

Next an S-s-U- cell from one of our panels was tested. It was negative. Further U- cells were tested to exclude remaining alloantibodies. The patient's cells were typed for U antigen. As expected they typed U-.

What do we know about the U antigen? The antigen is high incidence as 99.9% Caucasians and 99% blacks are U positive. The antigen is resistant to Ficin and DTT-treatment. Anti-U may cause mild to severe transfusion reactions and has been implicated in mild to severe HDN. Because of the rarity of U- individuals, donor units typed as U- are generally obtained from local or national rare frozen unit inventories. In this case, no transfusions were required for the mother or her infant.

Diane Stockman, MT(ASCP)  
Reference Laboratory Technologist  
American Red Cross, Southeastern Michigan Region

## AMERICAN RED CROSS 6<sup>TH</sup> ANNUAL IMMUNOHEMATOLOGY UPDATE

The Southeastern Michigan Region of the American Red Cross Blood Services held its 6<sup>th</sup> Annual Immunohematology Update for hospital customers on June 22, 2004. The seminar was coordinated by Sheralyn Johnson, MS, MT(ASCP), Training Specialist in the region's Education Department. The goal of the seminar was to provide an update program that would be of interest to bench level medical technologists, technicians, and supervisors. Most of the topics chosen were blood center-oriented activities that were thought to be of interest to the group. Approximately, 45 medical laboratory personnel from the hospitals attended the one-day seminar.

The seminar was free and included breakfast, lunch, and an optional tour of the facility for those who were interested. In the morning, Bruce Newman, MD, the region's Medical Director, spoke on "Blood Shortages and Improving Our Blood Supply". This was followed by a discussion on bacterial detection in platelets by a panel including Sue Adams MSA, MT(ASCP)SBB from the Detroit Medical Center University Hospital; Michelle Tuson MT(ASCP)SBB from St. Joseph Mercy Hospital-Oakland;

and Dr. Newman. Madhvi Rajpurkar, MD, a neonatologist from Children's Hospital of Michigan spoke on "Neonatal Thrombocytopenia".

In the afternoon, Tarita Gibson, Recruitment Specialist in the Southeastern Michigan Region's Bone Marrow Department, spoke about bone marrow donor recruitment; and a recent bone marrow donor also spoke about his bone marrow donation experience. Audrey Peoples, BSN, MAT, a Collections Specialist in the region, spoke about a new apheresis collection system from Haemonetics Corporation that allows the blood center to collect two red-cell units from a single donation on mobile operations. Janis Hamilton, MS, MT(ASCP)SBB, Manager of the region's Reference Laboratory, described how the region handles special blood orders. Finally, Ms. Hamilton and Diane Stockman, MT(ASCP), Medical Technologist in the Reference Laboratory, presented some interesting case studies. Evaluations by the participants indicated that they enjoyed and appreciated the seminar.

Sheralyn Johnson, MS, MT(ASCP)  
Bruce Newman, MD





MICHIGAN ASSOCIATION OF BLOOD BANKS  
P.O. Box 3605 • Center Line, MI 48015-0605

A time to learn . . .  
A time to share . . .



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Michigan Association of  
Blood Banks  
**50<sup>th</sup>**  
ANNUAL MEETING

**September 22<sup>nd</sup>-23<sup>rd</sup>**

PUT THESE DATES IN YOUR  
CALENDAR NOW!

**DON'T MISS IT!**

**Preliminary program and  
registration form on page 3**